

- 18 -

Claims

1. A communication system comprising
a first communication device (1);
5 a first network control device (20; 21) for
controlling a first network to which said first
communication device (1) is connected; and
a first interface establishing device (30; 31; 32)
connected between said first network control device (20;
10 21) and a transmitting network (4); wherein
said first communication device (1) and said first
network control device (20; 21) are connected such that a
use signal (US) and a control signal (CS) are sent
separately to said first network control device (20; 21);
15 and
said first network control device (20; 21) and said
first interface establishing device (30; 31; 32) are
connected such that said use signal (US) and said control
signal (CS) are sent separately to said first interface
20 establishing device (30; 31; 32).

2. A communication system according to claim 1, wherein
said first interface establishing device (30) comprises a
control signal transfer means (30b) for receiving said
25 control signal (CS) from said first network control
device (20) and sending said control signal (CS) over
said transmitting network (4).

3. A communication system according to claim 2, wherein
30 said first interface establishing device (30) comprises a
compressing means (30a) for compressing said use signal,

- 19 -

the compressed signal being sent over said transmitting network (4).

4. A communication system according to claim 3, further
5 comprising

a second interface establishing device (50)
connected to said transmitting network (4); wherein
said second interface establishing device (50)
comprises

10 a decompressing means (50a) for decompressing
said use signal (US) received via said network (4);
and

a tone generation means (50c) for receiving
said control signal (CS) and generating a tone
15 signal (TS) in response to said control signal (CS).

5. A communication system according to claim 4, further
comprising

a second communication device (7); and
20 a second network control device (60) wherein
said use signal (US) and said tone signal (TS) is
combined in said second interface establishing device
(50);
said combined signal is received by said network
25 control device (60) and sent to said second communication
device (7).

6. A communication system according to claim 3, further
comprising

30 a second interface establishing device (51; 52)
connected to said transmitting network (4); and
a second network control device (61; 62); wherein

DRAFT-2008-02-01-001

- 20 -

said second interface establishing device (51; 52) comprises

a decompressing means (51a; 52a) for decompressing said use signal received via said network (4); and

a control transfer means receiving said control signal and sending said control signal to said second network control device (61; 62).

10 7. A communication system according to claim 6, further comprising

a second communication device (7); wherein said second network control device (61) comprises a tone generation means (61a) for receiving said control signal and generating a tone signal (TS) in response to said control signal;

said use signal and said tone signal (TS) is combined in said second network control device (61); and the combined signal is sent to said second

20 communication device (7).

8. A communication system according to claim 6, further comprising

a second communication device (72); wherein said second network control device (62) sends said control signal (CS) and said use signal (US) separately to said second communication device (72).

9. A communication system according to claim 8, wherein
30 said second communication device (72) comprises a tone generation means (72a) for receiving said control

- 21 -

signal (**CS**) and generating a tone signal (**TS**) in response to said control signal (**CS**).

10. A communication system according to any of the
5 previous claims, wherein

 said tone signal generated in response to said control signal (**TS**) is a DTMF signal.

11. A communication system according to any of the
10 previous claims, wherein

 said control signal is generated in the first communication means (1) in response to an operation of a key.

15 12. A communication system according to any of the previous claims, wherein

 said network (4) is an IP based network.

13. A communication system according to any of the
20 previous claims, wherein

 said first communication device (1) is a mobile phone.

14. A communication system according to any of the
25 claims 1 to 12, wherein

 said first communication device (1) is a fixed phone.

15. A communication system according to any of the
30 previous claims, wherein

 said second communication device (7; 72) is a mobile phone.

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- 22 -

16. A communication system according to any of the claims 1 to 14, wherein

 said second communication device (7; 72) is a fixed phone.

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17. A communication system according to any one of the previous claims, wherein

 said first network control device (20) and said first interface establishing means (30) are constructed
10 as one unit.

18. A communication system according to any one of the claims 1 to 16, wherein

 said first network control device (20) and said
15 first interface establishing means (30) are constructed as separate units.

19. A communication system according to any one of the previous claims, wherein

 said second network control device (50; 51) and said
20 first interface establishing means (60; 61; 62) are constructed as one unit.

25 20. A communication system according to any one of the claims 1 to 18, wherein

 said first network control device (50; 51) and said
first interface establishing means (60; 61; 62) are
constructed as separate units.

30 21. A communication system according to any one of the claims 1 to 3, further comprising a network communication device (73) connectable directly to said network (4) such that said control signal (CS) and said use signal (USC)

- 23 -

is transmitted from said first interface establishing device (30) to said network communication device (73).

22. A communication system according to claim 21,
5 wherein said network (4) is an IP based network and said network communication device (73) is an IP phone.

23. A communication system according to claim 1, wherein
said first network interface establishing means (32)
10 comprises a tone generator (32a).

24. A communication method for a communication system comprising a first communication device (1), a first network control device (20) for controlling a first
15 network to which said first communication device (1) is connected and a first interface establishing device (30) connected between said first network control device (20) and a transmitting network (4); said method comprising the steps of

20 sending (S1) a use signal (US) and a control signal (CS) from said first communication device (1) to said first network control device (20) separately; and
sending (S2) said use signal (US) and said control signal (CS) from said first network control device (20)
25 to said first interface establishing device (30) separately.

26. A method according to claim 24, further comprising
the step of sending (S3) said control signal (CS) over
30 said network (4).

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- 24 -

26. A method according to claim 25, further comprising the step (**S4**) of compressing said use signal (**US**), the compressed signal (**USC**) being sent over said network (**4**).

5 27. A method according to claim 26, further comprising the steps of

receiving (**S5**) said compressed use signal (**USC**) and said control signal (**CS**) in a communication system on a far-end side of said network (**4**); and

10 generating (**S6**) a tone signal (**TS**) in response to said control signal (**CS**) on the far-end side of said network (**4**).

15 28. A method according to claim 27, wherein said step of generating (**S6**) said tone signal is performed in a second interface establishing means (**50**).

20 29. A method according to claim 27, wherein said step of generating (**S6**) said tone signal (**TS**) is performed in a second network control device (**61**).

30. A method according to claim 27, wherein said step of generating (**S6**) said tone signal (**TS**) is performed in a second communication device (**72**).